ACCESSION #: 9603120137

LICENSEE EVENT REPORT (LER)

FACILITY NAME: LaSalle County Station Unit Two PAGE: 1 OF 4

DOCKET NUMBER: 05000374

TITLE: Manual Reactor Scram Due To 2E Main Power Transformer

High Temperature.

EVENT DATE: 02/04/96 LER #: 96-002-00 REPORT DATE: 03/04/96

OTHER FACILITIES INVOLVED: None DOCKET NO: 05000

OPERATING MODE: 1 POWER LEVEL: 100

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR SECTION:

50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:

NAME: Larry Bukantis, System TELEPHONE: (815) 357-6761

Engineering x 2576

COMPONENT FAILURE DESCRIPTION:

CAUSE: SYSTEM: COMPONENT: MANUFACTURER:

REPORTABLE NPRDS:

SUPPLEMENTAL REPORT EXPECTED: NO

ABSTRACT:

At 2037 hours, on February 4,1996, Unit 2 was in operational Condition 1 (Run) at 100 % power when it was manually scrammed per LOA-AP-06 "Actions on Transformer Trouble Alarm". At 2005 hours, the control room received a 2E Main Power Transformer trouble alarm and dispatched an Equipment Operator (EO) to investigate. The EO found no cooling fans or cooling pumps running even though all power supplies and breaker line-ups were normal. The Shift Engineer directed an emergency load reduction per LGP-3-1 "Power Changes". When Transformer cooling could not be restored the unit was

manually scrammed.

All systems responded as designed with the exceptions of the 2A Circulating water pump which tripped on the electrical load transfer, and the Electric - Hydraulic control (EHC) system pressure was low for turbine control pressure.

The cause of the event was determined to be the loss of transformer cooling caused by an open circuit in the transformer cooling logic.

TEXT PAGE 2 OF 4

PLANT AND SYSTEM IDENTIFICATION

General Electric - Boiling Water Reactor

Energy Industry Identification System (EIIS) codes are identified in

the text as [XX].

A. CONDITION PRIOR TO EVENT

Unit(s): 1/2 Event Date: 02/04/96 Event Time: 2037 Hours

Reactor Mode(s): 5/1 Modes(s) Name: Refuel/Run Power Level(s): 0%

100%

B. DESCRIPTION OF EVENT

At 2037 hours, on February 4,1996, LaSalle Unit 2 was operating at

approximately 100 % power when it was manually scrammed as required

per LOA-AP-06 "Actions on Transformer Trouble Alarm".

At 2005 hours, the 2E Main Power Transformer (MPT)[EL] trouble alarm

was received in the control room and an Equipment Operator (EO) was

dispatched to the transformer. LOA-AP-06 was entered after

discovering all cooling fans and pumps were de-energized The BO

reported that 2E MPT oil temperature was 92 degrees C and

transformer cooling could not be locally restored.

U2 generator MVars were reduced to 0 and, at 2015 hours, the Shift Engineer directed a generator load reduction at 120 Kw/hr. The operators confirmed that normal and alternate cooling feed breakers for transformer were closed. The Shift Engineer ordered core flow reduced to 60 M lbm/hr and ordered an emergency power reduction per LGP-3-1 "Power Changes". At 2037 hours, when transformer cooling could not be restored, the unit was manually scrammed. The Main turbine and generator tripped and all off-site buses fast-transferred successfully.

The 2A CW pump tripped following fast-transfer from Unit Auxiliary Transformer (UAT) to Station Auxiliary Transformer (SAT). The Electric - Hydraulic control (EHC)[JJ] system pressure dropped from 1525 lbs. to 1100 lbs., when several turbine shutoff valves stuck in reset.

C. CAUSE OF EVENT

During trouble shooting, it was discovered that power was not available to the transformer control logic even though all the associated breakers were closed. The cabling between the 2E MPT and the station generator panel (2PL18J) appeared to have severed (electrically open) by ice forming in a section of the cable conduit. The cable is used to energize a contactor at the transformer, which starts the associated transformer oil pumps and

fans after the generator field breaker closes.

The Operational Analysis Department (OAD) was able to verify the cable break approximately 25' from the transformer at the point where it enters the underground

cable trough. The generator field breaker contacts which auto-start the cooling fans, will be bypassed as an interim measure until permanent repairs can be made.

The alarm circuitry was reviewed. The loss of oil flow alarm relay did not energize due to the failure mode and thus, no advanced warning of the abnormal condition was available to the control room. The high oil temperature alarm functioned properly and did alarm the control room of the loss of cooling.

Transformer oil samples were analyzed with satisfactory results. No further concerns exist with the 2E MPT.

This event is reportable per 10CFR50.73(a)(2)(iv) due to an automatic actuation of an engineered safety feature (ESF).

D. ASSESSMENT OF SAFETY CONSEQUENCES

The Shift Engineer directed a manual scram of the Unit 2 reactor when it was apparent that the 2 East Main Power Transformer oil temperature could not be maintained within the procedural limits set forth in LOA-AP-06, " Actions on Transformer trouble Alarms". The safety significance of this event was minimal. off site power was

maintained to station equipment via the fast transfer of loads from the UAT to the SAT. All Safety Systems operated an designed.

E. CORRECTIVE ACTIONS

1. Immediate Corrective Actions

a. Engineering inspected the other conduits associated with 2E, 2W, and Unit Auxiliary Transformers. These conduits were evacuated of water / ice and properly sealed. Continuity of the other cables in the affected conduit was verified by the FM and OAD.

b. Engineering installed LAP-240-6, Temporary System Change (TSC) 2-0005-96 to bypass the open circuit in the transformer control logic. Operating submitted a temporary procedure change to LOP-TG-02(Turbine Generator Startup) which reflects the installation of TSC 2-0005-96

c. EHC pressure switches and the stuck shut off valves were replaced.

2. Long Term Corrective Actions

a. Repairs to the cabling between the 2E MPT and the station generator panel (2PL18J) will be completed during the next forced outage of sufficient duration.

b. Work to address the 2 A Circulating Water pump trip (during bus transfer) will be completed by August 10, 1996.

F. PREVIOUS OCCURRENCES

None

G. COMPONENT FAILURE DATA

Since no component failure occurred, this section is not applicable.

Commonwealth Edison Company

LaSalle Generating Station

2601 North 21st Road

Marseilles, IL 61341-9757

Tel 815-357-6761

ComEd

March 4, 1996

United States Nuclear Regulatory Commission

Attention: Document Control Desk

Washington, D.C. 20555

Licensee Event Report #96-002-00, Docket #050-374 is being submitted to

your office in accordance with 10CFR50.73 (a)(2)(iv).

Respectfully,

D. J. Ray

Station Manager

LaSalle County Station

Enclosure

cc: H. J. Miller, NRC Region III Administrator

P. G. Brochman, NRC Senior Resident Inspector - LaSalle

C. Matthews, IDNS Resident Inspector - LaSalle

F. Niziolek, IDNS Senior Reactor Analyst

INPO - Records Center

D. L. Farrar, Nuclear Regulatory Services Manager

A Unicom Company

*** END OF DOCUMENT ***